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Claims

1. A compound 8 to 50 nucleobases in length targeted to a nucleic acid molecule encoding neutrophil gelatinase associated lipocalin (NGAL), **characterized in** that said compound specifically hybridizes to and inhibits the translation of
5 NGAL.
2. A compound according to claim 1, wherein the target sequence is SEQ ID NO. 1 or equivalent functional homologues thereof.
3. The compound according to claim 1, wherein said compound is an antisense oligonucleotide complementary to the mRNA.
- 10 4. The compound according to claim 1, wherein the oligonucleotide is a DNA molecule.
5. The compound according to claim 1, wherein the oligonucleotide is a RNA molecule.
- 15 6. The compound according to claim 3, wherein the antisense oligonucleotide has a sequence selected from the group consisting of SEQ ID NO. 3 - 11.
7. The compound according to claim 3, wherein the oligonucleotide is RNAi comprising at least an 8 nucleotide portion of a sequence selected from the group of SEQ.ID.NO 3 - 11 and having a total length of no more than 25 nucleotides.
- 20 8. A compound 8 to 50 nucleobases in length targeted to a nucleic acid molecule encoding NGAL, said compound being an antisense oligonucleotide which specifically hybridizes to and inhibits the translation of NGAL in a human subject, **characterized in** that the compound is chemically modified by substitution in a non-bridging oxygen atom of the antisense nucleic acid backbone with a moiety selected from the group consisting of methane phosphate, methyl
25 phosphate, and phosphorothioate.

9. The compound according to claim 8, wherein the substitution occurs at one or more nucleotides selected from the 3' end or the 5' end or both.
10. The compound according to claim 8, wherein the substitution occurs at one or more nucleotides at any position along the entire length of said oligonucleotide.
- 5 11. The compound according to any one of the preceding claims, wherein said compound is an antisense oligonucleotide composed of DNA or RNA or an analogue or mimic of DNA or RNA including but not restricted to the following: methylphosphonate, N3'->P5'-phosphoramidate, morpholino, peptide nucleic acid (PNA), locked nucleic acid (LNA), arabinosyl nucleic acid (ANA), fluoro-10 arabinosyl nucleic acid (FANA) methoxy-ethyl nucleic acid (MOE).
12. The compound according to claim 1, wherein said compound is an antisense oligonucleotide that is a homo or heteropolymer containing combinations of the above DNA or RNA or analogues or mimics of DNA or RNA.
13. The compound according to any one of claims 2 - 7, wherein in that said 15 oligonucleotide comprises at least one modified sugar moiety nucleobase.
14. The compound of claim 13, wherein the modified sugar moiety is a 2'-O-methoxyethyl sugar moiety.
15. A composition comprising the compound according to any one of the preceding claims and a pharmaceutically acceptable carrier or diluent.
- 20 16. The composition of claim 15, wherein said composition further comprises a colloidal dispersion system.
17. A method of inhibiting the translation of NGAL in cells or tissues, **characterized** in that said cells or tissues are contacted with the compound of any one of claims 1-14 thereby inhibiting the translation of NGAL.

18. A method of inhibiting the translation of NGAL in cells or tissues, **characterized** in that said cells or tissues are contacted with the composition of any one of claims 15 - 16 thereby inhibiting the translation of NGAL.
19. The method according to claims 17 or 18, wherein the inhibition of the NGAL expression suppresses a NGAL dependent process in a human subject.
20. The method according to claim 19, wherein the NGAL dependent process is one of inflammatory bowel disease, such as ulcerative colitis and Crohn's disease, rheumatoid arthritis, psoriasis, and asthma.
21. A method of preventing, alleviating or treating a NGAL dependent disorder in a human patient, **characterized** in that NGAL expression is suppressed in one or more cells in said patient.
22. The method according to claim 21, wherein said NGAL dependent disorder is one of inflammatory bowel disease, such as ulcerative colitis and Crohn's disease, rheumatoid arthritis, psoriasis, and asthma.
23. A recombinant nucleotide sequence comprising a compound according to any one of claims 1 - 14.
24. A recombinant expression vector comprising the recombinant nucleotide sequence according to claim 23.
25. The recombinant expression vector according to claim 24, wherein the vector is of eukaryotic or prokaryotic origin.
26. A method of inhibiting the expression of NGAL in cells or tissues, **characterized** in that said cells or tissues are contacted *in vivo* or *in vitro* with the recombinant nucleotide sequence expressed by the recombinant vector according to claim 25.
27. A recombinant host cell produced by the method of claim 26.
28. A transgenic non-human animal, wherein said animal carries at least one sequence according to claim 6 functionally inserted in at least one cell.

29. The transgenic animal according to claim 28, wherein the at least one functionally inserted sequence is over-expressed.

30. A method of inhibiting the expression of NGAL in cells or tissues, wherein a composition according to claim 15 or 16 is administered to a human in a therapeutically effective dose with a pharmaceutically acceptable carrier.

5 31. A method of diagnosing inflammatory bowel disease in a human subject, **characterized in** the method comprising the step of screening for the presence or absence of the expression of NGAL, wherein the expression of NGAL is taken as an indication of inflammatory bowel disease.

10 32. A compound 8 to 50 nucleobases in length targeted to a nucleic acid molecule encoding 24p3/uterocalin, **characterized in** that said compound specifically hybridizes to and inhibits the translation of 24p3/uterocalin.

33. A compound according to claim 32, wherein the target sequence is SEQ ID NO. 2 or equivalent functional homologues thereof.

15 34. The compound according to claim 33, wherein said compound is an antisense oligonucleotide complementary to the mRNA.

35. The compound according to claim 33, wherein the oligonucleotide is a DNA molecule.

20 36. The compound according to claim 33, wherein the oligonucleotide is a RNA molecule.

37. The compound according to claim 33, wherein the antisense oligonucleotide has a sequence selected from the group consisting of SEQ ID NO. 3 - 11.

38. A transgenic non-human animal, wherein said animal carries at least one sequence according to claim 30 functionally inserted in at least one cell.

25 39. The transgenic animal according to claim 38, wherein the at least one functionally inserted sequence is over-expressed.